

DATE: July 25, 1973

To : W.K.H. Panofsky  
Director and Professor SLAC

FROM : Joshua Lederberg  
Department of Genetics

SUBJECT:

*Foreign Affairs*

Dear Pefe,

Thank you for sending me your beautiful paper on the mutual hostage relationship. In my own correspondence with Ikle (I tried to make a critical point by some too subtle irony). I was delighted to see you articulate the basic issues with such clarity! I have only the most minute of rhetorical remarks and a few comments that perhaps should not be taken in to account for the publication.

I am particularly glad to see you put great emphasis on the PAL/submarine problem. Was this not the subject of some news statements between Brezhnev and Nixon?

Under reference 1 I wonder if you would not want to be reminded also of Rapaport's book.

Page 2, "accrue", the term jars slightly when used in a non-quantitative context.

Page 3 and elsewhere, "clean nuclear war". The paradox is that a pure deterrent would consist of the dirtiest possible weapons! Perhaps there are no rational arguments to want to discourage this emphasis. But one had to sympathize with balkiness at advocating this direction.

Page 6, swift massive retaliation. Of course, you are right that there is no technical foundation for this necessity. However, there is a psychological point. To retaliate in fact after one is mortally wounded is irrational. Programming for a swift response is a signal that no conditions of rationality will be permitted to interfere with the certainty of retaliation. The importance of establishing a secure conviction about such an "irrational" retaliatory response is self-evident. And I think this may be the actual historical foundation for the emphasis on the swiftness of the response. This concern does not stand up to a very much further analysis, from the standpoint of the expectations and the reliance of an adversary that he will not be retaliated against!

Page 8, last word, "technically". The cliché "technically impossible" might be misinterpreted, for some people will read that at least unconsciously as "technically impossible but practically possible". "(There is no technical means to achieve this)" is probably a more reliable phrasing.

Page 10, strategic forces on either or both sides. Transpose both and either.

Page 11, second paragraph, our hope: this is, of course, the crux of the

argument. Perhaps you should even overteach, by repetition, the importance of "the chance of anyone of them being delivered", as well as "the number of nuclear weapons". Should you not also mention miscalculation? And the possibility of such miscalculations may well increase, unless great care is taken, even as a result of mutual force-reduction.

Page 11, bottom, and the general critique of Ikle. I fully agree with your standpoint about his discussion, notwithstanding the rather muted irony of the way in which I expressed this in my letter to him.

Page 12, no technically demonstrable break -- except as I mentioned the really dirty weapons.

Thank you again for a beautiful piece of analysis and of writing which is an important contribution.